Cells to Surgery Quiz: July 2014

Leyre Falto-Aizpurua[1], Yazdani Abyaneh M[1], Robert D. Griffith[1] and Keyvan Nouri[1]

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JID and Logical Images, Inc., have cooperated to offer the Cells to Surgery Quiz, incorporating diagnostic images from VisualDx's vast database. Questions relate to the image as well as to selected articles in *JID*, which are listed after the questions. Answers will be posted as supplementary material. We hope you enjoy this challenge.

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QUESTIONS

1. A 39-year-old woman presents to your clinic with the lesion shown above. She says it appeared where you had previously performed a punch biopsy for a benign mole, and she is concerned about the appearance of the lesion. What is your diagnosis?

a. Tinea corporis.

b. Hypertrophic scar.

c. Lichen planus.

d. Keloid.

e. Squamous cell carcinoma.

[1]*Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, Florida, USA*

2. The medical student who is shadowing you during this encounter asks you about the mechanism underlying this process. Which of the following is *not* true of the tumor growth factor (TGF)-β/Smad signaling pathway?

a. Its persistent activation leads to hypertrophic scarring.

b. It is part of the normal wound-healing process.

c. It increases expression of fibronectin.

d. It increases expression of connective-tissue growth factor.

e. It results in decreased deposition of collagen.

3. Application of TGF-β type I receptor (TGFβRI) small interfering RNA to wound granulation tissue *in vivo* accomplishes which of the following?

a. It decreases TGFβRI expression.

b. It decreases connective tissue growth factor expression.

c. It improves Vancouver Scar Scale scores.

d. It decreases α-smooth muscle actin expression.

e. All of the above.

TOPIC ARTICLE

Questions 1 to 3 refer to the following article:

Wang Y-W, Liou N-H, Cherng J-H *et al.* (2014) siRNA-targeting transforming growth factor-β type I receptor reduces wound scarring and extracellular matrix deposition of scar tissue. *J Invest Dermatol* 134:2016–25

Answers are available as supplementary material at http://dx.doi.org/10.1038/jid.2014.215.